

### Roofer Falls From Extension Ladder

A residential roofing laborer was severely injured after falling when the extension ladder he was climbing slipped.

The crew arrived at the residential roof cleaning job at around 10:00 A.M., about twenty minutes before the incident occurred. The single story residence had a low pitched roof, 9 feet 4 inches from the ground.

A more experienced roofer set up the fiberglass extension ladder and a tarp. He placed it at a 4:1 ratio on the edge of a flowerbed. One foot of the ladder was on the soft mulch of the flowerbed and the other foot was on the concrete walkway. The top of the ladder was leaning against the gutter, only extending above the gutter by a rung or two.

The roofer who placed the ladder climbed up first to install a fall-protection anchor. A few minutes later, the laborer started climbing the ladder wearing his fall protection harness. He was carrying a brush and a rope over his left shoulder, and was not maintaining three points of contact.

The laborer was halfway up when the feet of the ladder slipped, causing both the ladder and laborer to fall. He fell on his back on top of the ladder.

Emergency services took the injured laborer to the hospital. He needed surgery to repair multiple fractures in his lower back, and remained on modified duty almost a year after the incident had occurred.

The laborer, who had been hired about six months before the incident, had not received formal ladder safety training from his employer.

### What do you think went wrong?

In the space below, list some of the factors that you think could have contributed to this incident. Then, flip the page over for contributing factors and safety recommendations and requirements.



**Figure 1:** The tape measure shows where the ladder was set up. One foot was on the mulch, the other foot was on concrete.



**Figure 2:** The fiberglass extension ladder involved in the incident was damaged. The top rung of the ladder was bent (circled). The damage was reported to the employer, but the ladder was not removed from service or fixed.

**Reporting:** Employers are required to contact DOSH within eight hours of a workplace fatality or in-patient hospitalization of any employee. See [WAC 296-27-031](http://wac.wa.gov/wac296-27-031).

## Contributing Factors

**The ladder was not on a firm, level surface.** The base of the ladder was set up with one foot on the concrete walkway and the other foot in the soft mulch of the flowerbed.

**The ladder did not extend at least 3 feet above the surface of the roof.** The ladder was placed against the gutter, and extended above it by only one or two rungs.

**No ladder training.** The employer did not train workers to recognize or respond to ladder hazards, as required.

**No ladder inspection.** The employer did not ensure the ladder was in good working condition. The ladder was in service with a damaged rung. Workers previously reported this damage to the employer, but the ladder was not fixed or removed from service.

## Recommendations

**Plan for safety.** Conduct pre-shift safety meetings to discuss jobsite hazards. Discuss how to move materials safely—do not climb ladder with materials in hand. Carry tools in a tool belt or raise tools up using a hand line.

**Proper ladder use.** Face the ladder and maintain three points of contact while climbing and descending. Avoid leaning or reaching that could cause the ladder to tip sideways or the base to slide. Never use a damaged ladder.

**Perform spot checks.** Employers should perform daily spot checks to ensure their workers are maintaining proper ladder safety procedures.

## Requirements

- **Training.** Employers must train employees to recognize ladder hazards and the procedures to minimize these hazards. See [WAC 296-876-15005\(1\)](#)
- **Condition and inspection.** Employers must keep portable ladders in good, usable condition. See [WAC 296-876-30005\(1\)](#)
- **Support.** You must place the ladder either with a secure footing on a firm, level support surface, or secure the ladder to prevent accidental displacement. See [WAC 296-876-40015\(1\)](#)
- **Getting on and off ladders at upper levels.** You must make sure a ladder used to access an upper level has the side rails extended at least three feet above the landing surface if the ladder length permits. See [WAC 296-876-40030\(1\)](#)

## Resources

- Chapter 296-876 WAC: Ladders, Portable, and Fixed—<https://app.leg.wa.gov/wac/default.aspx?cite=296-876>
- NIOSH Ladder Safety Mobile App—<https://www.cdc.gov/niosh/topics/falls/mobileapp.html>
- OSHA Fact Sheet: Reducing Falls in Construction, Safe Use of Extension Ladders—<https://www.osha.gov/sites/default/files/publications/OSHA3660.pdf>

Safety Training Sign-In (Print Name Legibly)      Date: \_\_\_\_\_

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